

B especially articulately joined, at the respective joints, and are, for example, formed of respectively two parallel extending wires or cables of steel or another suitable material. The at least one joint of the third joint set lies below the lowermost corner joint of the first joint set with which it is connected.

In the Claims:

Please cancel claims 1 to 4.

Claims 5 to 20 have previously been cancelled in applicant's First Preliminary Amendment.

Please enter new claims 21 to 40 as follows.

102 4970641

B 21. (new) Deployable structure with a modular configuration consisting of at least one collapsible module (91), which is bounded by joints (114, 115, 126, 121) of a first joint set, which are corner joints of the module (91) and lie in a first surface, and by joints (101, 102, 113, 108) of a second joint set, which are corner joints of the module (91) and lie in a second surface, and with at least one joint (109, 122) of a third joint set, which lies outside of the first surface, whereby at least a portion of the joints of the first and second joint set is fixable in its position relative to one another, especially connectable with one another, by a guide mechanism, characterized in

that, one joint (109) of the third joint set is connected with at least two joints (114, 115, 113, 121) of the first and/or second joint set by a connecting element (39, 41, 43, 45) that transmits essentially only tension forces, and is arranged below the ^{NAB} lowermost joint (114, 115, 121) of the first joint set with which ^{112 what the joint or the connecting} it is connected, and in that the forces arising upon loading of the structure by a useful working load and/or the self-weight load are transmittable as tension forces away from the joint (109) of the third joint set to the joints (114, 115, 113, 121) of the first and/or second joint set via the connecting element (39, 41, 43, 45) that transmits essentially only tension forces.

102 ✓
22. (new) Structure according to claim 21, characterized in that a joint (122) of the third joint set is connected with at least one joint (101, 102, 113, 108) of the second joint set by a connecting element (40, 42, 44, 46) that transmits tension and compression forces.

102 ✓
23. (new) Structure according to claim 22, characterized in that the at least two joints (114, 115, 113, 121) of the first and/or second joint set and the at least one joint (101, 102, 113, 108) of the second joint set are connected with a common ⁽⁵³⁾ joint of the third joint set.

102 ✓
24. (new) Structure according to claim 22, characterized in that the at least two joints (114, 115, 113, 121) of the

first and/or second joint set are connected with a first joint (109) of the third joint set, and the at least one joint (101, 102, 113, 108) of the second joint set is connected with a second joint (122) of the third joint set, and in that the first joint (109) of the third joint set is connected with the second joint (122) of the third joint set by a connecting element (11) that transmits compression and tension forces. (34, 25)

102
B² 25. (new) Structure according to claim 21, characterized in that the first and/or the second surface is a plane.

X 26. (new) Structure according to claim 21, characterized in that all joints (101, 102, 113, 108) of the second joint set, and the joint (109) of the third joint set, which is connected with at least two joints (114, 115, 113, 121) of the first and/or second joint set by a connecting element (39, 41, 43, 45) that transmits essentially only tension forces, lie in one plane.

X 27. (new) Structure according to claim 22, characterized in that all joints (114, 115, 126, 121) of the first joint set and the joint (122) of the third joint set, which is connected with at least one joint (101, 102, 113, 108) of the second joint set by a connecting element (40, 42, 44, 46) that transmits tension and compression forces, lie in one plane.

102

28. (new) Structure according to claim 21, characterized in that the guide mechanism comprises guide means, and in that at least one joint (114) of the first joint set of a corner of the module (91) especially arranged on the outer circumference of the structure is connected by the guide means with a joint (102) of the second joint set of a neighboring corner of the module (91) especially arranged on the outer circumference of the structure, and a joint (101) of the second joint set of the corner is connected by the guide means with a joint (115) of the first joint set of the neighboring corner.

Tube T

102

29. (new) Structure according to claim 28, characterized in that the guide means comprise connecting elements (15, 16) that transmit tension and compression forces and that are crossed-over and pivotally connected with one another.

103 design

30. (new) Structure according to claim 29, characterized in that the connecting elements (16, 32, 17, 20, 34, 21, 24, 36, 25, 28, 38, 29) that transmit tension and compression forces and that lead to supports of the support structure have a greater load capacity, especially a larger diameter, than the remaining connecting elements (15, 31, 18, 19, 33, 22, 23, 35, 26, 27, 37, 30) of the guide means.

X

31. (new) Structure according to claim 29, characterized in that at least a portion of the connecting elements (15, 16; 17, 18; up to 37, 38), which are pair-wise crossed-over and

pivotally connected with one another and which transmit tension and compression forces, are connected with one another offset from their center in the longitudinal direction.

X 32. (new) Structure according to claim 21, characterized in that multiple modules (91, 92, 93, 94) are arranged next to one another, and in that neighboring modules comprise common joints.

15249705

B2 33. (new) Structure according to claim 21, characterized in that the expansion of the module (91) or the structure (90) is adjustable by an operating arrangement.

the operating arrangement the shafts to provide

X 34. (new) Structure according to claim 33, characterized in that the operating arrangement comprises expansion and retraction means, especially an expansion cable and a retraction cable, which are guided in the respective joints over deflection means and are preferably fixably operable on a common joint (101).

X 35. (new) Structure according to claim 34, characterized in that the expansion cable (1) is guided in the respective joints over deflection means, especially deflection rollers or deflection saddles, with at least two different deflection radii.

36. (new) Structure according to claim 34, characterized in that the structure (90) can have a pre-stress applied thereto by means of the operating arrangement, and thereby the structure (90) takes on a prescribable form in a loaded condition.

102

37. (new) Structure according to claim 21, characterized in that at least a portion of the joints (114 to 121, 126) of the first joint set (and/or of the joints (101 to 108, 113) of the second joint set (and/or of the joints (109 to 112, 122 to 125) of the third joint set are connectable by a membrane in such a manner so that thereby an at least partially closed outer surface of the first or second surface is formed.

+

38. (new) Structure according to claim 21, characterized in that at least a portion of the joints (114 to 121, 126) of the first joint set and at least a portion of the joints (122 to 125) of the third joint set are connectable with at least one, preferably triangular, panel element (201 to 216) in such a manner so that thereby an at least partially closed outer surface of the first surface is formed.

103 post mtd depending upon desired reliability of end point

39. (new) Structure according to claim 22, characterized in that the connecting elements that transmit tension and compression forces are articulately joined on the respective joints and are especially formed by rods of aluminum.